

What is claimed is:

1. An apparatus for processing a music tone signal in response to a clock signal at each sampling period, the apparatus comprising:

a clock generator that generates the clock signal;

a signal processor operable in synchronization to the clock signal for time-divisionally processing a plurality of music tone signals through a plurality of channels within one sampling period; and

a clock controller being operative during a supply duration allocated within one sampling period for supplying the clock signal to the signal processor from the clock generator to thereby operate the signal processor, and being operative during other than the supply duration within one sampling period for stopping the supplying of the clock signal to the signal processor to thereby suspend the signal processor.

2. The apparatus according to claim 1, further comprising an allocating device that allocates a predetermined supply duration within one sampling period, and a specifying device that specifies a detail of processing of the music tone signals in accordance with the predetermined supply duration so that the signal processor can complete the processing of the music tone signals within the predetermined supply duration.

10022745-121204

3. The apparatus according to claim 2, wherein the allocating device allocates the predetermined supply duration based on a predetermined number of channels through which music tones are generated concurrently by the processing of the music tone signals.

4. The apparatus according to claim 2, wherein the allocating device allocates the predetermined supply duration based on a predetermined number of steps by which a program is executed stepwise for processing the music tone signals.

5. The apparatus according to claim 2, wherein the specifying device specifies the detail of the processing of the music tone signals in terms of a number of channels through which the music tone signals are processed for concurrent generation of music tones.

6. The apparatus according to claim 2, wherein the specifying device specifies the detail of the processing of the music tone signals in terms of a kind of a program selectably executed by the signal processor in the processing of the music tone signals.

7. The apparatus according to claim 1, further comprising a specifying device that specifies a detail of processing of the music tone signals, and an allocating device that allocates a supply duration within one sampling period in

10022745-121201

accordance with the specified detail of the processing so that the signal processor can complete the specified detail of the processing of the music tone signals within the allocated supply duration.

8. The apparatus according to claim 7, wherein the allocating device allocates the supply duration in accordance with the specified detail of the processing in terms of a predetermined number of channels through which music tones are generated concurrently by the processing of the music tone signals.

a

9. The apparatus according to claim 7, wherein the allocating device allocates the supply duration in accordance with the specified detail of the processing in terms of a predetermined number of steps by which a program is executed stepwise for processing the music tone signals.

10. The apparatus according to claim 7, wherein the specifying device specifies the detail of the processing of the music tone signals in terms of a number of channels through which the music tone signals are processed for concurrent generation of music tones.

11. The apparatus according to claim 7, wherein the specifying device specifies the detail of the processing of the music tone signals in terms of a kind of a program

selectably executed by the signal processor in the processing of the music tone signals.

12. The apparatus according to claim 1, wherein the signal processor processes the music tone signal in such a manner that waveform data of a designated timbre is read out to generate the music tone signal at a designated pitch.

13. The apparatus according to claim 1, wherein the signal processor processes the music tone signal in such a manner that waveform data is read out to generate the music tone signal and the generated music tone signal is subjected to filter processing.

14. The apparatus according to claim 1, wherein the signal processor processes the music tone signal in such a manner as to control an amplitude of the music tone signal.

15. The apparatus according to claim 1, wherein the signal processor processes the music tone signal in such a manner as to impart an effect to the music tone signal.

16. A method of processing a music tone signal in response to a clock signal at each sampling period, the method comprising the steps of:

continuously generating the clock signal;

10022745 . 121201

operating a signal processor in synchronization to the clock signal for time-divisionally processing a plurality of music tone signals through a plurality of channels within one sampling period;

supplying the generated clock signal to the signal processor so as to operate the signal processor during a supply duration allocated within one sampling period; and

stopping the supplying of the generated clock signal to the signal processor so as to suspend the signal processor during other than the supply duration within one sampling period.

17. A medium for use in a music apparatus having a signal processor for processing a music tone signal in response to a clock signal at each sampling period, the medium containing program instructions executable by the music apparatus to perform a method comprising the steps of:

continuously generating the clock signal;

operating the signal processor in synchronization to the clock signal for time-divisionally processing a plurality of music tone signals through a plurality of channels within one sampling period;

supplying the generated clock signal to the signal processor so as to operate the signal processor during a supply duration allocated within one sampling period; and

stopping the supplying of the generated clock signal to the signal processor so as to suspend the signal processor

during other than the supply duration within one sampling
period.

ADD
A1

10022745-121201